

08/441,443

CLAIMS

1. A purified HCV polynucleotide.
- 5 2. A recombinant HCV polynucleotide.
3. A recombinant polynucleotide comprising a
sequence derived from an HCV genome or from HCV cDNA.
- 10 4. A recombinant polynucleotide encoding an
epitope of HCV.
5. A recombinant vector containing the
polynucleotide of claim 2, or claim 3, or claim 4.
- 15 6. A host cell transformed with the vector of
claim 5.
7. A recombinant expression system comprising
20 an open reading frame (ORF) of DNA derived from an HCV
genome or from HCV cDNA, wherein the ORF is operably
linked to a control sequence compatible with a desired
host.
- 25 8. A cell transformed with the recombinant
expression system of claim 7.
9. A polypeptide produced by the cell of claim
8.
- 30 10. Purified HCV.
11. A preparation of polypeptides from the HCV
of claim 10.
- 35 12. A purified HCV polypeptide.

13. A purified polypeptide comprising an epitope which is immunologically identifiable with an epitope contained in HCV.

5 14. A recombinant HCV polypeptide.

15. A recombinant polypeptide comprised of a sequence derived from an HCV genome or from HCV cDNA.

10 16. A recombinant polypeptide comprised of an HCV epitope.

15 17. A fusion polypeptide comprised of an HCV polypeptide.

18. A monoclonal antibody directed against an HCV epitope.

20 19. A purified preparation of polyclonal antibodies directed against HCV.

25 20. A particle which is immunogenic against HCV infection comprising a non-HCV polypeptide having an amino acid sequence capable of forming a particle when said sequence is produced in a eukaryotic host, and an HCV epitope.

21. A polynucleotide probe for HCV.

- 30 22. A kit for analyzing samples for the presence of polynucleotides derived from HCV comprising a polynucleotide probe containing a nucleotide sequence from HCV of about 8 or more nucleotides, in a suitable container.

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23. A kit for analyzing samples for the presence of an HCV antigen comprising an antibody directed against the HCV antigen to be detected, in a suitable container.

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24. A kit for analyzing samples for the presence of an antibodies directed against an HCV antigen comprising a polypeptide containing an HCV epitope present in the HCV antigen, in a suitable container.

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25. A polypeptide comprised of an HCV epitope, attached to a solid substrate.

26. An antibody to an HCV epitope, attached to
15 a solid substrate.

27. A method for producing a polypeptide containing an HCV epitope comprising incubating host cells transformed with an expression vector containing a
20 sequence encoding a polypeptide containing an HCV epitope under conditions which allow expression of said polypeptide.

28. A polypeptide containing an HCV epitope
25 produced by the method of claim 27.

29. A method for detecting HCV nucleic acids in a sample comprising:

- 30 (a) reacting nucleic acids of the sample with a probe for an HCV polynucleotide under conditions which allow the formation of a polynucleotide duplex between the probe and the HCV nucleic acid from the sample; and
(b) detecting a polynucleotide duplex which contains the probe.

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30. An immunoassay for detecting an HCV antigen comprising:

(a) incubating a sample suspected of containing an HCV antigen with a probe antibody directed against the HCV antigen to be detected under conditions which allow the formation of an antigen-antibody complex; and

(b) detecting an antigen-antibody complex containing the probe antibody.

31. An immunoassay for detecting antibodies directed against an HCV antigen comprising:

(a) incubating a sample suspected of containing anti-HCV antibodies with a probe polypeptide which contains an epitope of the HCV, under conditions which allow the formation of an antibody-antigen complex; and

(b) detecting the antibody-antigen complex containing the probe antigen.

32. A vaccine for treatment of HCV infection comprising an immunogenic polypeptide containing an HCV epitope wherein the immunogenic polypeptide is present in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

33. A vaccine for treatment of HCV infection comprising inactivated HCV in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

34. A vaccine for treatment of HCV infection comprising attenuated HCV in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

35. A tissue culture grown cell infected with HCV.

36. The HCV infected cell of claim 35, wherein
the cell is of a human macrophage cell line, or is of a
hepatocyte cell line, or is of a mosquito cell line, or is
of a tick cell line, or is of a mouse macrophage cell
5 line, or is an embryonic cell.

37. The HCV infected cell of claim 35, wherein
the cell is of a cell line derived from liver of an HCV
infected individual.

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38. A method for producing antibodies to HCV
comprising administering to an individual an isolated im-
munogenic polypeptide containing an HCV epitope in an
amount sufficient to produce an immune response.

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39. A method for producing antibodies to HCV
comprising administering to an individual the polypeptide
preparation of claim 11, wherein the preparation contains
at least 1 immunogenic polypeptide, and the administering
20 is of an amount sufficient to produce an immune response.

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